NEW RECORD OF MUELLER'S SNAKE, *RHINOPLOCEPHALUS BICOLOR*

By P. CHRISTENSEN, Manjimup

Two live specimens of this rarely collected snake were recently collected from near Pemberton. The area from which they were obtained is approximately 9 to 10 miles NW of Pemberton along the Vasse highway and about 4 miles to the west of the highway.

The topography is hilly and the soil is a white quartz sand. The vegetation consists of small scattered Jarrah, *Eucalyptus marginata,* trees to 20ft., *Banksia ilicifolia, Pultenaea reticulata* and *Agonis parviceps* on the hilltops. On the flats between the hills there are blackboys, *Xanthorrhoea preissii, Agonis parviceps* and various monocotyledons. The flat areas are very wet or under water during the winter months.

The two specimens were captured at points approximately one mile apart. One was found underneath a dead Blackboy stump on the side of a bulldozed track on 6 January 1972, the other in an old stick ants nest, also on the edge of a bulldozed track on the following day. Although the weather was warm when the snakes were located they moved comparatively sluggishly when trying to escape capture. They were in no way aggressive and it was not difficult to capture them.

DESCRIPTION

The first specimen, measuring 15 inches in length and weighing 26.1 gm. was sent to Dr. G. M. Storr the Curator of Reptiles at the W.A. Museum. The second specimen measuring 17.25 inches in length and weighing 32.0 gm. was kept alive for observation. The following is a description of this specimen. Body scales in 15 rows, ventrals 155, and the anal and 33 sub-caudals are undivided.

The coloration is most distinctive both specimens being exactly similar. Dark brown above with an indistinct light brown dorsal stripe extending backwards from the head and fading past the nape. The head is very dark brown. The underside is flesh coloured to whitish and the bottom two rows of scales along the sides are orange tending to become lighter and more yellowish towards the head and neck. The topmost of these two rows has the scales tipped with brown. The snout is square, the eyes round, black, and slightly protruding. The tongue is brown.

HABITS

Unfortunately this snake died after 3 weeks in captivity. However some notes on its habits are worth recording.

There seems little doubt that this species is largely if not entirely nocturnal. When first put into its cage it lay coiled around some small stones until the cage was moved so as to expose it to direct sunlight, whereupon it burrowed beneath the sand remaining there until dusk. After dark it became active and spent the night in ceaseless exploration of its cage. It killed and ate two Lesueur's Skinks during the night and was still moving around at 7 a.m., but retired to hide under a piece of sacking when this was placed in the cage. Here it remained for the rest of the day emerging again to recommence the ceaseless exploration of its cage at dusk. Again it retired under the sacking at approximately 7 a.m. when the sun had begun to heat its cage.

It apparently did not like high temperatures as it came out later in the evening and was less active when the cage was placed inside next to the wood stove at night.

The two skinks were vomited up on the following night and this was subsequently repeated when another skink was introduced into its cage. The heads of the skinks appeared to have been chewed.

DISTRIBUTION

This snake is one of the least collected species in Australia. Glauert (1967) states that the species is "probably confined to the lower South-west. The specimen in the W.A. Museum came from Wagin; there is one in the Museum of Comparative Zoology at Harvard from Augusta; those in the National Museum, Melbourne, and the British Museum (Natural History) are merely labelled 'West Australia' and probably came from the vicinity of King George Sound." Dr. Storr informs me that since Mr. Glauert wrote his handbook six specimens have been added to their collection. They came from the following localities: Esperance, Bluff River (10 miles east of Cheyne Beach), Albany, Nornalup (5 miles NNW), Augusta (Mammoth cave) and Yelverton.

The species therefore has a fairly wide range and with the single exception of the specimen from Wagin the distribution appears to be coastal or sub-coastal. Considering the type of habitat in which the above two specimens were captured and the distribution of the other collections, it seems to me that the species may prefer sclerophyllous heath areas—areas with sandy soils which become largely saturated or even flooded during winter. The snakes could overwinter in ants nests on the elevated areas.

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APERIODIC STARTING RAINS IN TROPICAL WESTERN AUSTRALIA

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In general, the awakening of nature in a warm dry environment is determined by an increased supply of moisture. If this increase is adequate, the soil is moistened, seeds germinate, birds begin courting and nesting activities, animals that had burrowed to survive the unfavourable conditions become active again and emerge from the ground. The exact amount of rain needed to trigger off these various activities varies in each case. There may also be false starts, some of which have tragic results. It is undoubted, however, that occasionally the falls of rain are so great that every suitable form of life is activated again, and is enabled to continue activities successfully.

In the Kimberley region the normal time for such awakening of nature is the summer, but the first adequate rains may arrive any time between October and January. In the North Kimberley a monthly total of 25 mm (1 inch) or more comes some 10 per cent of the years in October, more than 70 per cent of the years in November and otherwise in December. In the East Kimberley the onset is slightly later, coming nearly 20 per cent of the years in October, nearly 40 per cent of the years in November, nearly 30 per cent of the years in December, occasionally in January. In the West Kimberley this monthly total has never been reached in October, some 10 per cent of the time in November, over 50 per cent of the time in December, over 30 per cent of the time in January. These are district average figures, and while correct for the whole area, may not apply to exceptional localities.

The last month to receive at least 25 mm (1 inch) in the North Kimberley is some 40 per cent of the time March, over 20 per cent of the